Claims:

WHAT IS CLAIMED IS:

1. A method for determining the effectiveness of a therapy by analyzing biochip output patterns generated from biological samples taken at different sampling times from a patient undergoing the therapy, said method comprising the steps of:

generating a viral diffusion curve associated with a therapy of interest;

enhancing the output pattern interfermotetrically by performing a nucleic acid amplification;

mapping each of the enhanced output patterns representative of hybridization activity to respective coordinates on the viral diffusion curve using fractal filtering;

determining a degree of convergence between the mapped coordinates on the viral diffusion curves; and

determining whether the therapy of interest has been effective based upon the degree of convergence from one sample to another.

2. A method for determining the effectiveness of a therapy by analyzing biochip output patterns generated from biological samples taken at different

sampling times from a patient undergoing the therapy, said method comprising the steps of:

generating a viral diffusion curve associated with a therapy of interest;

mapping each of the output patterns representative of hybridization activity to respective coordinates on the viral diffusion curve using fractal filtering;

determining a degree of convergence between the mapped coordinates on the viral diffusion curves;

determining whether the therapy of interest has been effective based upon the degree of convergence from one sample to another; and

wherein the biological sample is selected from a group consisting of a DNA, RNA, protein, peptide-nucleic acid (PNA) and targeted nucleic amplification (TNA) samples.